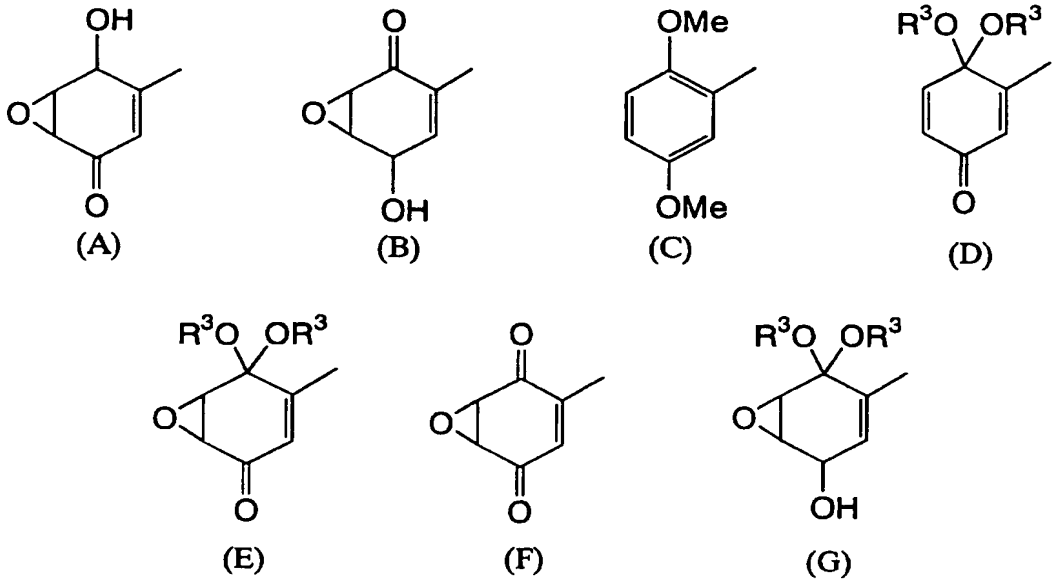


wherein R^3 represents a C1-4 alkyl group.

2. The pharmaceutical composition of claim 1, comprising improving at least one symptom by apoptosis of the tumor cell.

3. The pharmaceutical composition of claim 1, comprising improving at least one symptom resulting from the tumor cell without the contribution of apoptosis of the tumor cell.

4. The pharmaceutical composition of claim 3, comprising improving at least one symptom resulting from the tumor cell by inhibiting activation of NF-κB.

5. The pharmaceutical composition of claim 3, wherein the symptom is a tumor metastasis.

6. The pharmaceutical composition of claim 5, comprising improving the tumor metastasis by inhibiting adhesion to a vascular endothelial cell.

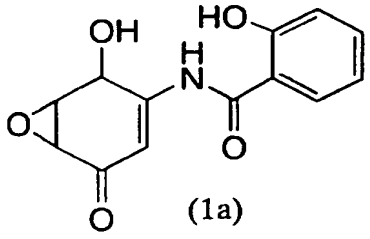
7. The pharmaceutical composition of claim 1, comprising improving at least one symptom resulting from the tumor cell by inhibiting proliferation of the tumor cell.

8. The pharmaceutical composition of claim 1, wherein the symptom is one selected from the group consisting of Hodgkin's disease, cancer cachexia, and leukemia.

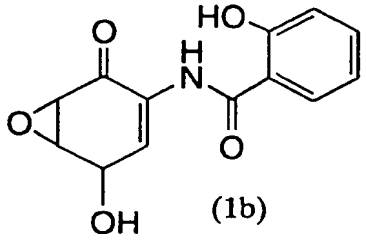
9. The pharmaceutical composition of claim 3, wherein the

tumor cell is a breast cancer cell.

10. The pharmaceutical composition of claim 3, wherein the composition is the following formula (1a) or (1b).



(1a)

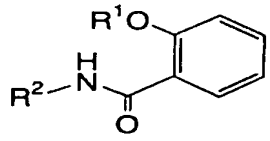


(1b)

11. The pharmaceutical composition of claim 8, comprising improving at least one symptom among loss of body weight, a decrease in hematocrit, a decrease in fat, and a decrease in muscle, which are the symptoms of cancer cachexia.

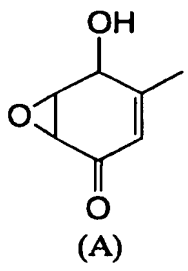
12. The pharmaceutical composition of claim 3, comprising improving at least one symptom resulting from the tumor cell by inhibiting intratumoral angiogenesis formed by the tumor cell.

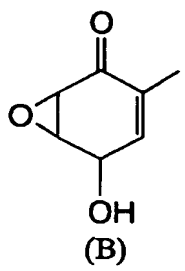
13. A pharmaceutical composition comprising as an active ingredient a compound, represented by the following general formula (1), which is capable of enhancing the effect of a therapy by inhibiting activation of NF-κB caused by the therapy that causes the activation of NF-κB, or a pharmacologically acceptable salt thereof.

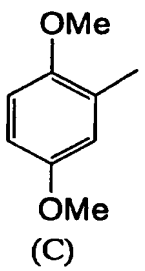


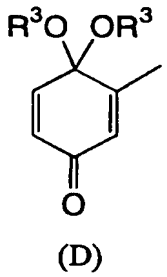
(1)

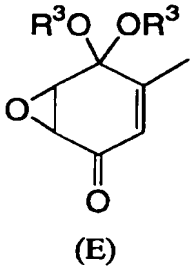
wherein R^1 represents a hydrogen atom or a C2-4 alkanoyl group and R^2 represents a group represented by the following formulae (A), (B), (C), (D), (E), (F) or (G):

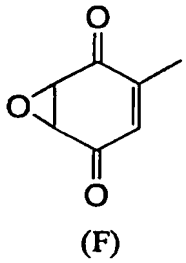

(A)

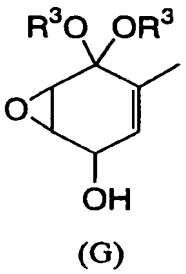

(B)


(C)


(D)


(E)


(F)


(G)

wherein R^3 represents a C1-4 alkyl group.

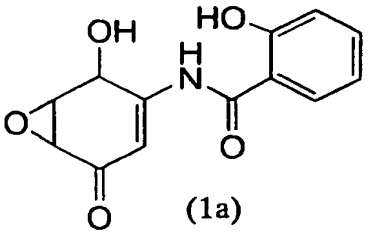
14. The pharmaceutical composition of claim 13, wherein the therapy that activates NF-κB is a therapy using an antitumor agent.

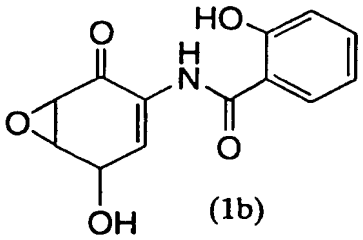
15. The pharmaceutical composition of claim 13, wherein the therapy that activates NF-κB is radiotherapy for a tumor cell.

16. The pharmaceutical composition of claim 14, comprising the antitumor agent as an active ingredient.

17. The pharmaceutical composition of claim 14, wherein the antitumor agent is camptothecin or daunorubicin.

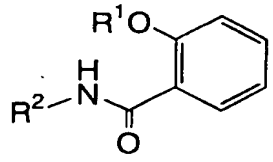
18. The pharmaceutical composition of claim 13, wherein the compound is the following formula (1a) or (1b).


(1a)


(1b)

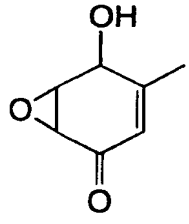
19. A tumor cell proliferation inhibitor for inhibiting

proliferation of a tumor cell comprising a compound represented by the following general formula (1) or a pharmacologically acceptable salt thereof as an active ingredient.

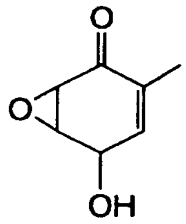


(1)

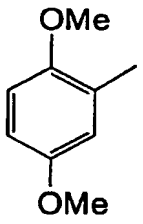
wherein R^1 represents a hydrogen atom or a C2-4 alkanoyl group and R^2 represents a group represented by the following formulae (A), (B), (C), (D), (E), (F) or (G):



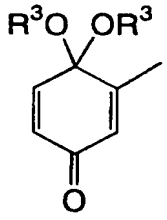
(A)



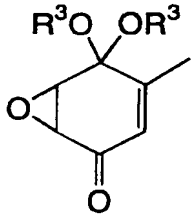
(B)



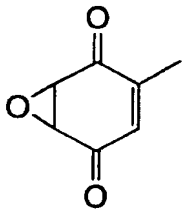
(C)



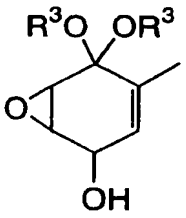
(D)



(E)



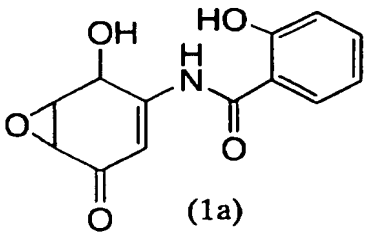
(F)



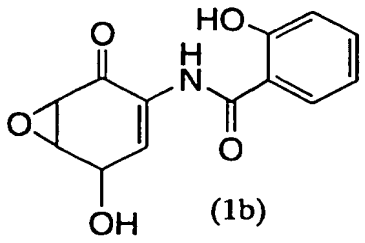
(G)

wherein R^3 represents a C1-4 alkyl group.

20. The tumor cell proliferation inhibitor of claim 3, wherein the composition is the following formula (1a) or (1b).

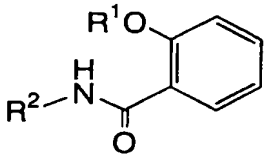


(1a)



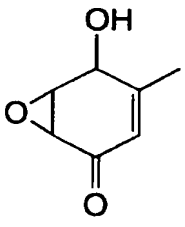
(1b)

21. An adhesion molecule expression inhibitor for suppressing the expression of an adhesion molecule in a vascular endothelial cell, comprising a compound represented by the following general formula (1) or a pharmacologically acceptable salt thereof as an active ingredient.

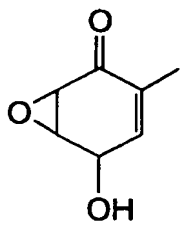


(1)

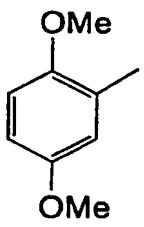
wherein R^1 represents a hydrogen atom or a C2-4 alkanoyl group and R^2 represents a group represented by the following formulae (A), (B), (C), (D), (E), (F) or (G):



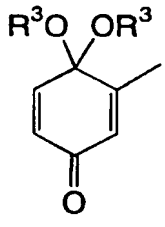
(A)



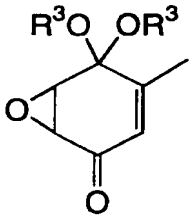
(B)



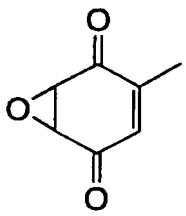
(C)



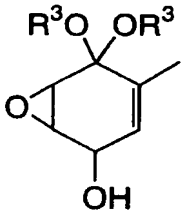
(D)



(E)



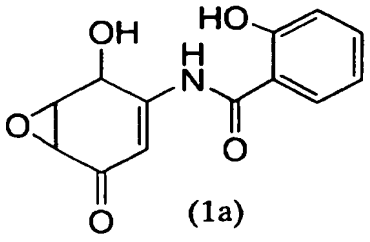
(F)



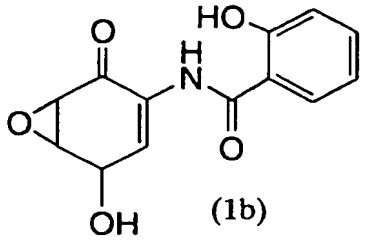
(G)

wherein R^3 represents a C1-4 alkyl group.

22. The adhesion molecule expression inhibitor derived from a vascular endothelial cell, wherein the composition is the following formula (1a) or (1b).

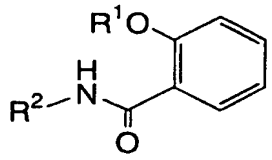


(1a)



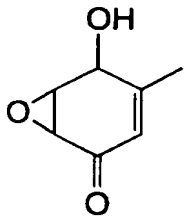
(1b)

23. An apoptosis inducer for inducing apoptosis of a tumor cell, comprising a compound represented by the following general formula (1) or a pharmacologically acceptable salt thereof as an active ingredient.

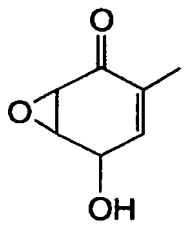


(1)

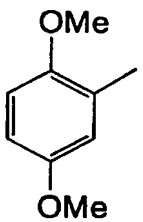
wherein R^1 represents a hydrogen atom or a C2-4 alkanoyl group and R^2 represents a group represented by the following formulae (A), (B), (C), (D), (E), (F) or (G):



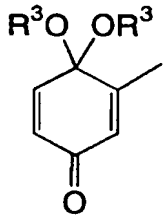
(A)



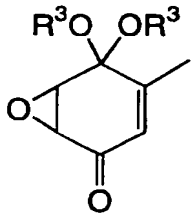
(B)



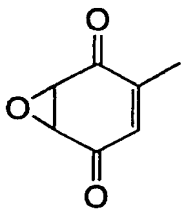
(C)



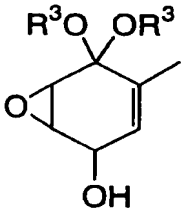
(D)



(E)



(F)

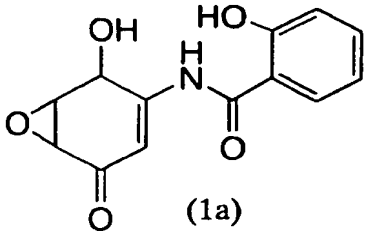


(G)

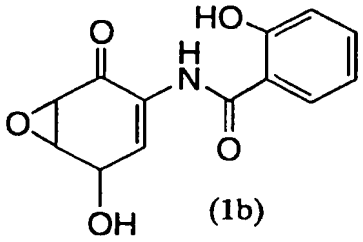
wherein R^3 represents a C1-4 alkyl group.

24. An apoptosis inducer, wherein the composition is the

following formula (1a) or (1b).



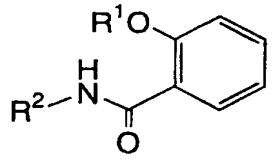
(1a)



(1b)

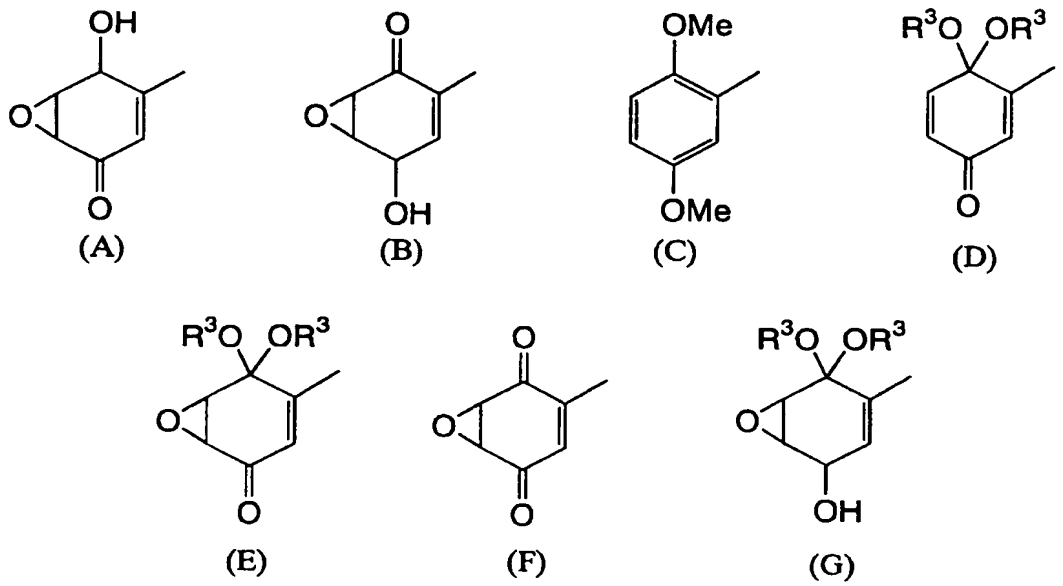
25. Preventive and therapeutic agents for arteriosclerosis, comprising a compound having NF-κB-inhibitory effect as an active ingredient.

26. The preventive and therapeutic agents of claim 25, wherein the compound having NF-κB inhibitory effect is represented by the following general formula (1) or a pharmacologically acceptable salt thereof.



(1)

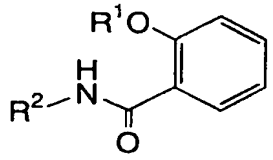
wherein R^1 represents a hydrogen atom or a C2-4 alkanoyl group and R^2 represents a group represented by the following formulae (A), (B), (C), (D), (E), (F) or (G):



wherein R^3 represents a C1-4 alkyl group.

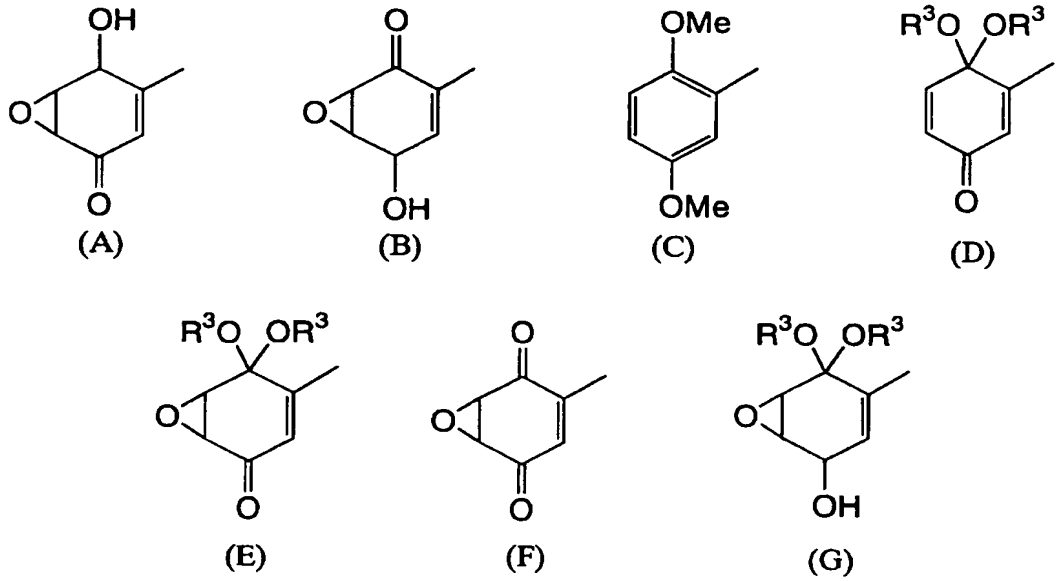
27. Preventive and therapeutic agents for cancer, comprising a compound having NF-κB-inhibitory effect as an active ingredient.

28. The preventive and therapeutic agents of claim 27, wherein the compound having NF-κB-inhibitory effect is represented by the following general formula (1) or a pharmacologically acceptable salt thereof.



(1)

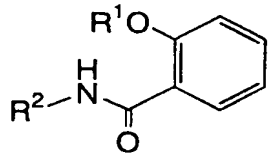
wherein R^1 represents a hydrogen atom or a C2-4 alkanoyl group and R2 represents a group represented by the following formulae (A), (B), (C), (D), (E), (F) or (G):



wherein R3 represents a C1-4 alkyl group.

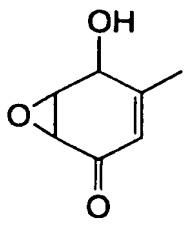
29. The preventive and therapeutic agents of claim 27, which are used for repressing cancer metastasis.

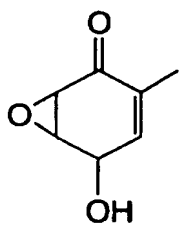
30. A therapeutic agent for cachexia, comprising a compound represented by the following general formula (1) or a pharmacologically acceptable salt thereof as an active ingredient.

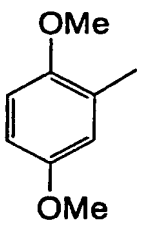


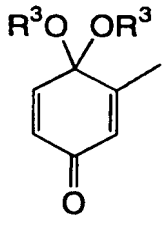
(1)

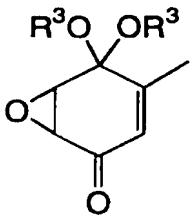
wherein R^1 represents a hydrogen atom or a C2-4 alkanoyl group and R^2 represents a group represented by the following formulae (A), (B), (C), (D), (E), (F) or (G):

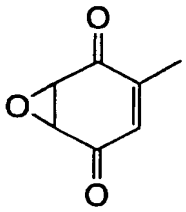

(A)

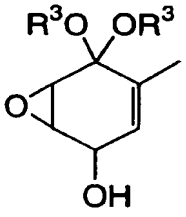

(B)


(C)


(D)

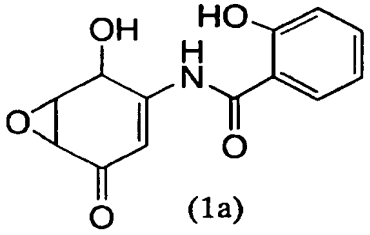

(E)

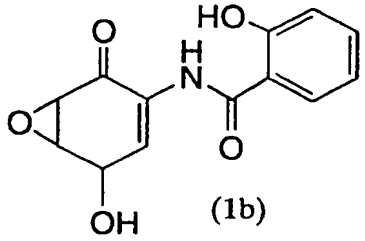

(F)


(G)

wherein R^3 represents a C1-4 alkyl group.

31. The therapeutic agent for cachexia of claim 30, wherein the composition is the following formula (1a) or (1b).


(1a)


(1b)

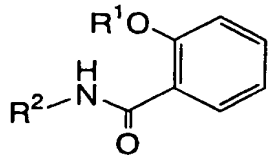
32. The therapeutic agent for cachexia of claim 30, which is a therapeutic agent for cancer cachexia in a tumor patient.

33. The pharmaceutical composition of claim 30, comprising improving at least one symptom among loss of body weight, a decrease in hematocrit, a decrease in fat, and a decrease in muscle, which are the symptoms of the cancer cachexia.

34. A therapeutic agent for cachexia, comprising a compound having NF-κB-inhibitory effect as an active ingredient.

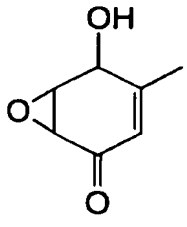
35. A therapeutic method, wherein a compound for improving at least one symptom resulting from a tumor cell, represented

by the following general formula (1) or a pharmacologically acceptable salt thereof is used.

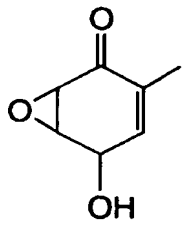


(1)

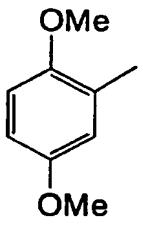
wherein R^1 represents a hydrogen atom or a C2-4 alkanoyl group and R^2 represents a group represented by the following formulae (A), (B), (C), (D), (E), (F) or (G):



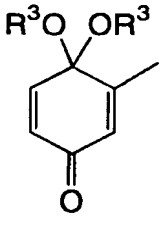
(A)



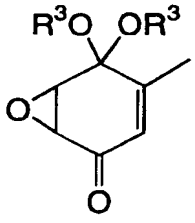
(B)



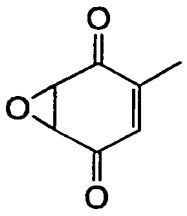
(C)



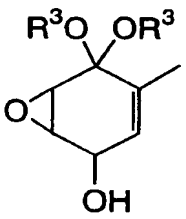
(D)



(E)



(F)



(G)

wherein R^3 represents a C1-4 alkyl group.

36. The therapeutic method of claim 35, comprising improving at least one symptom by apoptosis of the tumor cell.

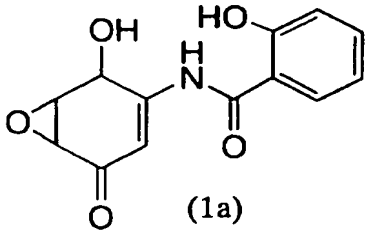
37. The therapeutic method of claim 35, comprising improving at least one symptom resulting from the tumor cell without the contribution of apoptosis of the tumor cell.

38. The therapeutic method of claim 35, comprising improving at least one symptom resulting from the tumor cell by inhibiting activation of NF-κB.

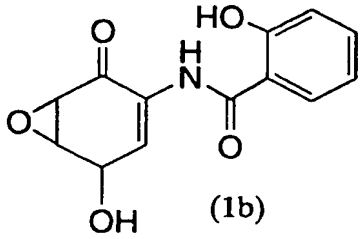
39. The therapeutic method of claim 35, wherein the symptom is one selected from the group consisting of tumor metastasis, a symptom resulting from the proliferation of the tumor cell,

Hodgkin's disease, and cancer cachexia.

40. The therapeutic method of claim 35, wherein the composition is the following formula (1a) or (1b).

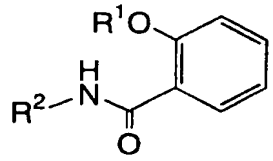


(1a)



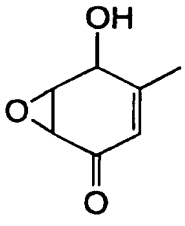
(1b)

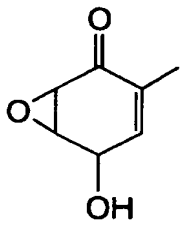
41. A therapeutic method, wherein a compound, for improving arteriosclerosis by inhibiting adhesion of a vascular endothelial cell to a leukocyte, represented by the following general formula (1) or a pharmacologically acceptable salt thereof is used.

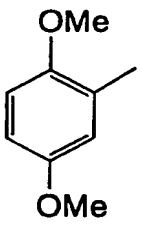


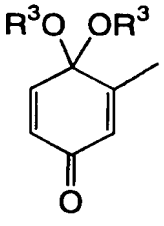
(1)

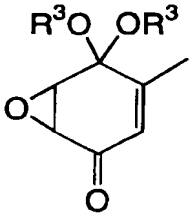
wherein R^1 represents a hydrogen atom or a C2-4 alkanoyl group and R^2 represents a group represented by the following formulae (A), (B), (C), (D), (E), (F) or (G):

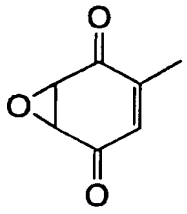

(A)

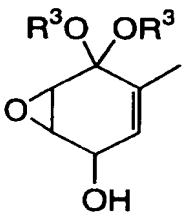

(B)


(C)


(D)

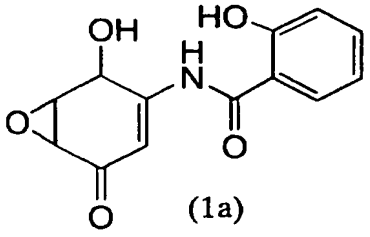

(E)

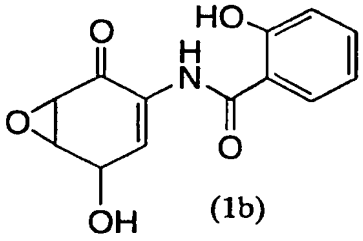

(F)


(G)

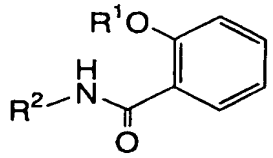
wherein R^3 represents a C2-4 alkyl group.

42. The therapeutic method of claim 41, wherein the composition is the following formula (1a) or (1b).


(1a)

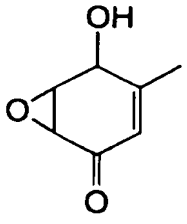

(1b)

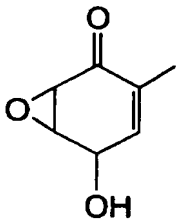
43. A therapeutic method, comprising the steps of performing a therapy for activating NF-κB and administering a pharmaceutical composition containing a compound represented by the following general formula (1) or a pharmacologically acceptable salt thereof as an active ingredient.

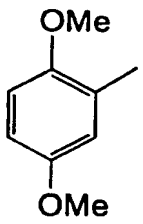

(1)

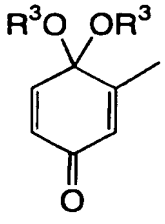
wherein R^1 represents a hydrogen atom or a C2-4 alkanoyl

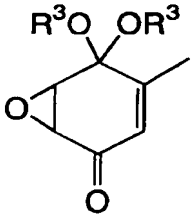
group and R^2 represents a group represented by the following formulae (A), (B), (C), (D), (E), (F) or (G):

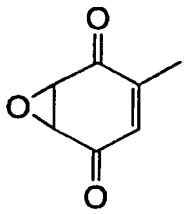

(A)

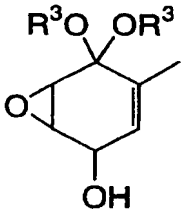

(B)


(C)


(D)


(E)


(F)

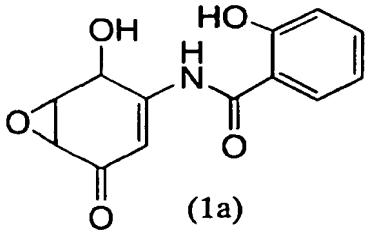

(G)

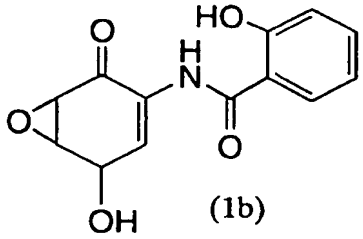
wherein R^3 represents a C1-4 alkyl group.

44. The therapeutic method of claim 43, wherein the therapy that activates NF-κB is administration of an antitumor agent.

45. The therapeutic agent of claim 43, wherein the therapy that activates NF-κB is radiotherapy for a tumor cell.

46. The therapeutic method of claim 43, wherein the composition is the following formula (1a) or (1b).


(1a)


(1b)

Abstract

Pharmaceutical compositions for improving at least one symptom resulting from tumor cells, which contains a compound